

Application Serial No. 10/606,072
Reply to Office Action dated July 27, 2004

REMARKS/ARGUMENTS

Initially, the Applicants would like to thank Examiner Paik for taking the time to discuss the present application with their representative. During the interview, it was agreed that amending the claims to recite that the second power level is an active power level would mean that the second power level could not be zero, i.e. the heating element could not simply be turned off to meet the claimed limitations. That is, both the first and second power levels represent activated states for the heating element such that any appliance which simply shuts off a heating element after a first time period would not address the claimed invention. The Examiner should note that each of the independent claims in the application as amended now includes this limitation.

It was also agreed that the feature of the invention concerning the controller automatically establishing a second, active power level if the second power level is not selected through the at least one control element constitutes allowable subject matter as none of the prior art relied upon by the Examiner, when taken singly or in combination, teaches this particular feature. To this end, please note that claim 5 has been placed in independent form to include all of these limitations. Therefore, it is respectfully submitted that at least claim 5 should be in clear condition for allowance.

In addressing the various formal matters raised in the case, note that the specification has been amended to correct the minor typographical error on page 2. Certainly, the Applicants appreciate the Examiner bringing this matter to their attention. With respect to the objection to claim 7, the dependency of this claim has been changed to claim 6 as previously treated by the Examiner. Finally, the Examiner questioned the support in the specification for the feature of terminating the operation of the heating element after a period of inactivity as set forth in claims 3 and 4. It was pointed out to the Examiner that support is found for this limitation on at least page 9, lines 24-26 of the specification.

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With reference to the patentability of the claimed subject matter versus the prior art, the applicant appreciates the indication that claim 15 contains allowable subject matter. In addition, it is assumed that claims 3 and 4 are likewise considered to be allowable over the known prior art. Furthermore, as indicated above, it is submitted that claim 5 should now be in clear condition for allowance. With respect to the remaining claims, it is submitted that these claims should also be allowed for various reasons. First of all, independent claims 1 and 12 now specifically limit the second power level to be greater than zero. In the outstanding Office Action, the Examiner indicates that the prior art is being applied as the second power level being "zero power." Obviously, this position is not longer sustainable.

However, it is submitted that the present invention as claimed is allowable for various other reasons. In general, it must first be realized that the invention is limited to controlling a heating element of a cooktop. A standard cooktop heating element is turned on by a user and remains in a set, activated state until manually altered by the user. Typically, a rotatable knob is employed to manually set the operational state of a cooktop heating element, although other types of control systems, such as that disclosed in the main reference to Welle, Jr. et al., also exist. In any case, in accordance with claim 1, structure is provided to enable a user to input first and second power settings, each of which includes an associated power level and time duration. A controller utilizes these settings to automatically perform a cooking operation covering both of the power levels. As indicated above, each of the power levels as claimed must be greater than zero.

Although establishing different temperatures or power levels for cooking in an oven may be known, enabling a user to program a heating element of a cooktop for different cooking stages as set forth in accordance with the invention is quite unique. The main reference to Welle, Jr. et al. relied upon by the Examiner basically teaches a cooktop which only includes push buttons to set a single power level. This arrangement works very much like the conventional rotating knob setting system. Noting this deficiency, the Examiner has modified Welle, Jr. et al. to include programmable settings in view of Ueda which is directed to a programmable microwave oven. It is respectfully

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submitted that hindsight is being employed in making this combination. There is no teaching in Ueda to employ the oven cavity program arrangement in connection with a cooktop and Welle, Jr. et al. does not provide any teaching of the desire to make such a modification. Where is the motivation for the combination coming from? The fact is that programmable oven cavities in microwave ovens and the like have been around for many years. Still no one has utilized any analogous technology in connection with controlling a cooktop. If the combination was so obvious, why wasn't it employed previously? The present Applicants have been in this industry for years and it wasn't obvious to them. Certainly the Examiner can realize the significant advantages and benefits associated with a cooktop constructed in accordance with the invention versus the known prior art. The Applicant has not claimed the invention for use in connection with any heating element in a cooking appliance, but rather the invention is limited to a cooktop control system. It is simply submitted that Ueda may provide suggestions on how to program an oven cavity, microwave or otherwise, but those suggestions do not include employing the technology for a cooktop.

In addition to the distinctions with respect to the claim 1 recitations, it is respectfully submitted that many of the dependent claims further distinguish the invention from the known prior art. For instance, claim 7 requires first and second display sections for the power level and time duration respectively. The Applicants could not find any disclosure in the applied prior art to this feature of the invention.

Claims 8-10 concern the specific use of slew buttons for the control element(s). During the interview, the Applicants' representative also discussed claim 8 with the Examiner so as to clear up any ambiguity with the term "slew." That is, claims 8-10 specify a particular control element(s) for use in the invention, i.e., first and second sets of slew buttons. Each slew button in accordance with the invention is a button that allows incrementing a unit of time or power in one direction only. For instance, to increase the unit, an upper slew button is pressed and, to decrease the unit, a lower slew button is pressed. There are simply no slew buttons employed in either Welle, Jr. et al. or Ueda.

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Claim 11 specifies that the first power level and first time period constitute a pre-heat process. No type of pre-heating is performed in connection with a microwave oven. The Examiner states that "the first power and time duration selection can be a pre-heat process or any other heat process the user desires it to be." Unfortunately, there is no teaching in the prior art to support this contention. A pre-heat process, as commonly known in the art, is a heating process performed prior to heating the food to be cooked. No such process is ever performed in connection with a microwave oven, such as in Ueda from where the Examiner is obtaining this feature.

With respect to claim 12, this claim should be allowable at least for the reasons discussed with respect to claim 1 given that claim 12 recites the requirement of automatically switching the at least one heating element to a second power level for a second time duration following the first time duration. Actually, given the specific steps performed in accordance with the limitations of claim 12, this claim is seen to be further distinguished from the applied prior art. However, in keeping with the amendment made to claim 1, the term "second power level" has been amended to indicate that the power level is an active, i.e., non-zero power level.

For reasons corresponding to those argued above for claim 7 above, it is respectfully submitted that claim 16 further distinguishes the invention from the applied prior art. Finally, it is respectfully submitted that the pausing and flashing limitations of claim 17, the displaying recitation in claim 18 and the slew button selection feature of the invention as set forth in claim 20 have not been addressed in the Office Action and the Applicant could not find any teachings to these aspects of the invention in the known prior art.

Based on the agreements reached with the Examiner, the above remarks and amendments to the application which have been made without the introduction of any new matter, reconsideration of the application is respectfully requested. More specifically, it is respectfully requested that the objections and rejections made in this case be withdrawn, the claims allowed and the application passed to issue. If the

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Examiner should have any questions regarding the allowance of this application, he is cordially invited to contact the undersigned at the number provided below if it would further expedite the prosecution of the application.

Respectfully submitted,



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